

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Appl. No. : 10/077,443  
Applicant : Timothy C. Loose et al.  
Filed : February 15, 2002  
Title : Simulation of Mechanical Reels On A Gaming Machine  
TC/A.U. : 3713  
Examiner : S.E. Jones

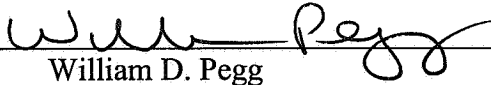
Docket No. : 47079-00115USPT

Mail Stop Appeal Brief-Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

Submitted herewith is Appellants' Second Amended Appeal Brief in support of the Notice of Appeal filed November 8, 2005, Appeal Brief and fee filed January 9, 2006, and the Amended Appeal Brief filed November 27, 2006. To the extent necessary, please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 10-0447 (Attorney Docket No. 47079-00115USPT) and please credit any additional fees to such deposit account.

Date: Jan 25 2006

  
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## TABLE OF CONTENTS

1.	REAL PARTY IN INTEREST .....	1
2.	RELATED APPEALS AND INTERFERENCES.....	1
3.	STATUS OF CLAIMS .....	2
4.	STATUS OF AMENDMENTS .....	2
5.	SUMMARY OF CLAIMED SUBJECT MATTER .....	2
6.	GROUND(S) OF REJECTION TO BE REVIEWED ON APPEAL.....	4
	I.    Whether claims 51-52 and 54-56 are unpatentable under 35 U.S.C. § 112, second paragraph, as being indefinite. ....	4
	II.   Whether claims 1, 3-9, and 51-52 and 54-56 are unpatentable under 35 U.S.C. §103(a) over U.S. Patent No. 5,934,672 to Sines et al. ( <i>hereinafter</i> “Sines”) in view of U.S. Patent No. 5,873,645 to Belfer. ....	4
7.	ARGUMENT .....	4
8.	APPENDIX OF CLAIMS ON APPEAL.....	19
9.	EVIDENCE APPENDIX .....	22
10.	RELATED PROCEEDINGS APPENDIX .....	23

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**SECOND AMENDED APPEAL BRIEF PURSUANT TO 37 C.F.R. § 41.37**

Mail Stop Appeal Brief-Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Dear Commissioner:

This amended appeal brief is filed pursuant to Appellant's appeal to the Board of Patent Appeals and Interferences from the final rejection of claims 1, 3-9, 51-52 and 54-56 in an Office Action dated August 8, 2005, for the above-listed application.

**1. REAL PARTY IN INTEREST**

The real party in interest is WMS Gaming Inc., a corporation organized and existing under the laws of the State of Delaware, having its principal place of business at 800 South Northpoint Boulevard, Waukegan, IL 60085

**2. RELATED APPEALS AND INTERFERENCES**

There are no related appeals and interferences.

**3. STATUS OF CLAIMS**

Claims 1, 3-9, 51-52 and 54-56 have been finally rejected. It is from the final rejection of claims 1, 3-9, 51-52, and 54-56 that this appeal is taken. Claims 2 and 53 have been cancelled. Claims 10-50 were withdrawn pursuant to the Restriction Requirement issued on March 24, 2004.

**4. STATUS OF AMENDMENTS**

An amendment to the claims was submitted subsequent to the imposition of the Final Office Action dated August 8, 2006. The amendments to the claims, included in the Response After Final filed on October 7, 2005, were accepted by the Examiner and entered, as noted in numbered paragraph 7 of the Advisory Action dated October 25, 2005. There are no outstanding amendments.

**5. SUMMARY OF CLAIMED SUBJECT MATTER**

One aspect of the claimed subject matter, corresponding to independent claim 1 and claims depending therefrom, relates to a spinning reel slot machine (*e.g.*, 5)(*see, e.g.*, FIG. 1; page 6, lines 11-16) which comprises an image display device (*e.g.*, 12)(*see, e.g.*, FIG. 2; page 6, lines 17-26) having a surface for producing images of simulated mechanical reels (*e.g.*, 20)(*see, e.g.*, FIG. 2; page 6, lines 27-33). A plurality of optical fibers (*e.g.*, 14) have first ends (*e.g.*, 16) optically coupled to the surface of the image display device 12 and second ends (*e.g.*, 18) for displaying the simulated mechanical reels 20 to a player of the slot machine 5. In this aspect, at least some of the second ends of the optical fibers 14 define a curved display surface (*see, e.g.*, FIG. 2) having a radius of curvature  $R$  (*e.g.*, FIGS. 2, 3) that approximates the radius of curvature

of a mechanical reel (*see, e.g.*, page 6, lines 27-29). A flat transmissive window (*e.g.*, 24) is provided in front of and separated from the curved display surface 18 (*see, e.g.*, FIG. 2; page 6, lines 31-33).

Another aspect of the presently claimed subject matter, corresponding to independent claim 8 and claims depending therefrom, relates to a method of operating a slot machine (*e.g.*, 5)(*see, e.g.*, FIG. 1; page 6, lines 11-16). This method includes the acts or steps of selecting a random outcome in response to receiving a wager and determining a symbol grouping corresponding to the random outcome (*see, e.g.*, page 6, lines 11-16 and lines 31-33; page 12, lines 5-8). This method includes the act or step of displaying the symbol grouping on ends (*e.g.*, 18; *see* FIG. 2) of an array of optical fibers (*e.g.*, 14; *see* FIG. 2), the ends 18 defining a curved display surface (*see, e.g.*, FIG. 2) having a radius of curvature R that approximates the radius of curvature of a mechanical reel (*see, e.g.*, page 6, lines 27-29), the symbol groupings being representative of simulated mechanical reels (*see, e.g.*, page 6, lines 29-30; FIG. 2).

Still another aspect, corresponding to independent claim 51 and claim depending therefrom, relates to a gaming machine (*e.g.*, 5)(*see, e.g.*, FIG. 1; page 6, lines 11-16) comprising a processor for randomly selecting an outcome from a plurality of outcomes in response to receiving a wager (*see, e.g.*, page 12, lines 1-9). An image display device is also provided (*e.g.*, 12)(*see, e.g.*, FIG. 2; page 6, lines 17-26) having a surface for producing images (*e.g.*, 20)(*see, e.g.*, FIG. 2; page 6, lines 27-33) corresponding to the selected outcome of the plurality of outcomes. A plurality of optical fibers (*e.g.*, 14; FIG. 2) have first ends (*e.g.*, 16; FIG. 2) optically coupled to the surface of the image display device 12 and second ends (*e.g.*, 18; FIG. 2) for displaying the images to a player of the gaming machine 5 to inform the player of the selected

outcome of the plurality of outcomes. In this aspect of a gaming machine, at least some of the second ends 18 of the optical fibers define a curved display surface (*see, e.g.*, FIGS. 2-3).

**6. GROUND S OF REJECTION TO BE REVIEWED ON APPEAL**

I. Whether claims 51-52 and 54-56 are unpatentable under 35 U.S.C. § 112, second paragraph, as being indefinite.

II. Whether claims 1, 3-9, and 51-52 and 54-56 are unpatentable under 35 U.S.C. §103(a) over U.S. Patent No. 5,934,672 to Sines et al. (*hereinafter* “Sines”) in view of U.S. Patent No. 5,873,645 to Belfer.

**7. ARGUMENT**

**I. 35 U.S.C. § 112, 2<sup>ND</sup> PARAGRAPH REJECTION OF CLAIMS 51-52 AND 54**

The Examiner rejected claims 51, 52 and 54 under 35 U.S.C. § 112, second paragraph, as being indefinite.

The rejection of claims 51-52 and 54 stated that there was “insufficient antecedent basis” for the limitation “said curved display device” in line 9 of claim 51. Appellant respectfully submits that the amendment to claims 51-52 in the October 7, 2005, Response After Final (amendments entered) amply addressed the Examiner’s rejection and rendered moot the asserted antecedent basis problem.

In view of the Examiner’s maintaining of the instant rejection of claims 51-52 and 54, Appellant further submits that the recitation of “a curved display surface” in claims 51-52 does not contain words or constitute a phrase whose meaning is unclear and which would present an

issue of clarity at least as to antecedent basis. Definiteness of claim language must be analyzed in light of the content of the application disclosure, the teachings of the prior art, and the claim interpretation that would be given by one of ordinary skill in the art at the time the invention was made. *See, e.g., In re Moore*, 439 F.2d 1232, 1235, 169 USPQ 236, 238 (CCPA 1971). The essential inquiry is whether the claims set out and circumscribe a particular subject matter with a *reasonable degree* of clarity. It is respectfully submitted that the recitation of “a curved display surface” is sufficiently definite under 35 U.S.C. § 112, second paragraph, in light at least of the content of the application disclosure (see, e.g., page 6, lines 11-33; FIGS. 2-3) and the claim interpretation that would be given by one of ordinary skill in the art at the time the invention was made.

Accordingly, Appellant respectfully submits that the 35 U.S.C. § 112, second paragraph rejection of claims 51, 52 and 54 be reversed.

## **II. 35 U.S.C. § 112, 2<sup>ND</sup> PARAGRAPH REJECTION OF CLAIMS 55-56**

The Examiner rejected claims 55-56 under 35 U.S.C. § 112, second paragraph, as being indefinite.

Claim 1, from which claims 55-56 depend, recites an “*image display device*” (emphasis added) and a “curved display surface” (not a ‘curved display device,’ as alleged by the Examiner). Each of claims 55-56 each refer back to “*said image display device*” (emphasis added).

Appellant is honestly nonplussed at the first instance of this rejection in the Office Action dated September 28, 2004, and the Examiner’s persistence in maintaining this rejection in the Final Office Action dated August 8, 2005, despite Appellant’s clear arguments in traverse of this

rejection. In this regard, Appellant respectfully submits that the Examiner appears not to have considered all rebuttal arguments and evidence presented by Appellant, as required. *See, e.g., In re Alton*, 76 F.3d 1168, 1174-75, 37 USPQ2d 1578, 1582-83 (Fed. Cir. 1996); *In re Soni*, 54 F.3d 746, 750, 34 USPQ2d 1684, 1687 (Fed. Cir. 1995); *In re Piasecki*, 745 F.2d 1468, 1474, 223 USPQ 785, 78990 (Fed. Cir. 1984).

Reversal of this 35 U.S.C. § 112, second paragraph, rejection of claims 55-56 is respectfully requested.

**III. 35 U.S.C. § 103 REJECTION OF CLAIMS 1, 3-9, 51-52 AND 54-56 OVER SINES IN  
VIEW OF BELFER**

**A. THE 35 U.S.C. § 103 REJECTION OF CLAIMS 1, 3-9, 51-52 AND 54-56  
OVER SINES IN VIEW OF BELFER IS IMPROPER BECAUSE BELFER IS NOT  
ANALOGOUS ART**

Appellant respectfully traverses the Examiner's treatment of Belfer as "analogous" art to teachings of Sines and respectfully submits that such "analogy" is only evident in hindsight based on Appellant's disclosure.

For a reference to be considered "analogous," the reference must "either be within the field of Appellant's endeavor or, if not, then must be reasonably pertinent to the particular problem with which the inventor was concerned." *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). A reference is "reasonably pertinent" if it "would have logically commended itself to an inventor's attention in considering his problem." *See, e.g., State Contracting & Eng'g Corp. v. Condotte America, Inc.*, 346 F.3d 1057, 1069, 68 USPQ2d



1481, 1490 (Fed. Cir. 2003); *Wang Laboratories Inc. v. Toshiba Corp.*, 993 F.2d 858, 26 USPQ2d 1767 (Fed. Cir. 1993).

Here, Sines relates to a “Slot Machine and Methods of Operation,” whereas Belfer relates to a “Fiber Optic Cellular Reflector.” Appellant respectfully submits that the Belfer reference, which bears absolutely no relation to wagering games, would not have “logically commended itself” to one of ordinary skill in the art of wagering game design considering ways in which to increase the popularity of video-based slot machines amongst traditionalists who generally avoid video-based slot machines, whether or not such person had, or did not have, knowledge of Sines.

However, the test for determining whether a reference is “reasonably pertinent” is *not* whether the reference may have been considered analogous to the inventor. Instead, the test for determining whether a reference is “reasonably pertinent” is whether the reference would have *logically* commended itself to some other potential inventor’s (*i.e.*, some other person) attention in considering the problem faced by the present inventors. Appellant submits that the Examiner is required to approach the obviousness issue from the view-point of one using ordinary skill in the art who is not an innovator, but rather follows conventional wisdom. *See, e.g., Standard Oil Co. v. American Cyanamid Co.*, 774 F.2d 448, 454 (Fed. Cir. 1985) (“A person of ordinary skill in the art is also presumed to be one who thinks along the line of conventional wisdom in the art and is not one who undertakes to innovate, whether by patient, and often expensive, systematic research or by extraordinary insights, it makes no difference which.”).

In other words, Appellant respectfully submits that a person of ordinary skill in the art, seeking to solve a problem of increasing popularity of video-based slot machines amongst traditionalists who generally avoid video-based slot machines, would not have reasonably been

motivated to look to a reference relating to a “Fiber Optic Cellular Reflector.” *In re Oetiker*, *supra*, and it is *immaterial* that the inventor himself may have combined aspects of two disparate fields to arrive at the invention. It is further noted that the Examiner’s statement that “if one was trying to simulate a mechanical reel on a display” (*see* Final Office Action, page 3, numbered paragraph 8) does not state the problem that was faced by the present inventors, but rather reflects a solution to the problem arrived at by the present inventors. Thus, Appellant submits that the measure of what is “reasonably pertinent” must stem from the problem faced by the inventors, stated above, rather than that which might relate to a solution arrived at by the inventors. It is submitted, therefore, that a person of ordinary skill in the art, seeking to solve a problem of increasing popularity of video-based slot machines amongst traditionalists who generally avoid video-based slot machines, would not have reasonably been motivated to look to a reference relating to a “Fiber Optic Cellular Reflector.”

Further, Appellant respectfully submits that the classifications of the applied references is evidence of non-obviousness that must be considered by the Examiner. There is absolutely no overlap or commonality in the U.S. Classifications of these references or in the fields of search considered relevant by the Examiners prosecuting these applications. Appellant submits that this is material evidence of non-analogy. *See, e.g., In re Clay*, 966 F.2d 656, 23 USPQ2d 1058 (Fed. Cir. 1992); *In re Ellis*, 476 F.2d 1370, 1372, 177 USPQ 526, 527 (CCPA 1973). Specifically, Sines is primarily classified under U.S. Class 273/143 R and is further classified under classes/subclasses 273/138A, 463/1, and 463/20 and was subjected to search in classes/subclasses 463/16, 20, 21; 463/30, 31, 32; 273/143 R, 138.1, 138.2, 138 A, and 138 R. Belfer is classified under U.S. Class 362/551 and secondarily under classes/subclasses 362/297

and 362/346. Belfer was subjected to search in classes/subclasses 362/32, 290, 297, and 346; 385/116, 119 and 120; 353/37; 348/739 and 804; and 345/32 and 905.

In the Advisory Action, the Examiner presented as evidence of analogy that he “searched class/subclass 463/30-32”. Appellant respectfully submits that the particular class/subclass in which an Examiner of a pending application chooses to search is not relevant to a determination of whether there is overlap or commonality in the U.S. Classifications of the applied references or in the fields of search considered relevant by the Examiners prosecuting the applications corresponding to the applied references. The *prima facie* determination must be premised upon a motivation of one of ordinary skill in the art to combine the teachings of particular references. The Examiner would have this honorable Board adopt the specious fallacy that any art cited by the Examiner of the application in question is, *ipso facto*, analogous because of the Examiner’s citation. Appellant respectfully submits that the question of analogy must be premised not upon the present Examiner’s subjective conclusion, but rather upon objective evidence gleaned from the applied references.

Appellant respectfully submits that Belfer does not legally constitute “analogous art” as it would not have “logically commended itself” to one of ordinary skill in the art having knowledge of Sines and considering ways in which to increase the popularity of video-based slot machines amongst traditionalists who generally avoid video-based slot machines.

Reversal of the Examiner’s 35 U.S.C. § 103 rejection of claims 1, 3-9, 51-52 and 54-56 is requested for at least this reason.

**B. THE ASSERTED PRIMA FACIE CASE OF OBVIOUSNESS FAILS FOR WANT  
OF EVIDENCE OF EQUIVALENCE**

A critical step in analyzing the patentability of claims pursuant to 35 U.S.C. § 103(a) is casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by legitimate prior art references and the then-accepted conventional wisdom in the field. *See, e.g., W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). 35 U.S.C. § 103 requires that the “subject matter as a whole would have been obvious *at the time the invention was made*” to avoid impermissible hindsight.

Sines discloses a slot machine and methods of operation. FIG. 8 is a schematic diagram of components used in one embodiment of the invention and displays optical fibers 52 arranged with image input ends 53 adjacent an outer surface of a symbol-bearing mechanical reel 51 (Col. 8, lines 23-46). The display ends 54 of the optical fibers 52 display the image of the mechanical reel 51. As shown in FIG. 8, the display ends 54 form a flat surface on which the image is displayed to a player’s eye 56.

In the Office Action dated August 8, 2005, the Examiner stated that “[i]t would have been obvious to one of ordinary skill in the art at the time the invention was made to use a video display device to transmit the symbols in order to reduce the image source.” (page 3 of Office Action). In the Examiner’s “Response to Arguments” in the Final Office Action, the Examiner added “[e]ven if Sines only produced an image of actual mechanical reels, it would have been obvious at the time of applicant’s invention to one having ordinary skill in the art to produce a simulated image *because providing either of the images performs the same equivalent function.*” (emphasis added).

Appellants respectfully submit that the Examiner failed to set forth a *prima facie* case of obviousness. To rely on equivalence as a rationale supporting an obviousness rejection, the equivalency must be recognized in the prior art, and cannot be based on Appellant's disclosure or the mere fact that the components at issue are functional or mechanical equivalents. *In re Ruff*, 256 F.2d 590, 118 USPQ 340 (CCPA 1958). Even components which might be functionally or mechanically equivalent are not necessarily obvious in view of one another. *In re Scott*, 323 F.2d 1016, 139 USPQ 297 (CCPA 1963).

In the present case, the Examiner has not shown evidence of the asserted "equivalency" in support of the obviousness rejection and the 35 U.S.C. § 103 rejection over Sines and Belfer fails at least for this reason, as the Examiner has failed to discharge the factual predicate required for a *prima facie* case of obviousness. Appellant submits that the Examiner's broad conclusory statements, standing alone, are not "evidence." *In re Dembiczak*, 175 F.3d 994, 999-1000, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) ("Mere . . . conclusory statements, however, are not sufficient to establish a genuine issue of material fact."); *McElmurry v. Arkansas Power & Light Co.*, 995 F.2d 1576, 1578, 27 USPQ2d 1129, 1131 (Fed. Cir. 1993).

Reversal of the Examiner's 35 U.S.C. § 103 rejection of claims 1, 3-9, 51-52 and 54-56 is requested for at least this reason.

**C. THE COMBINATION OF SINES AND BELFER DOES NOT TEACH OR  
SUGGEST THE CURVED DISPLAY SURFACE OF CLAIMS 1, 3-9 AND 52**

The Examiner alleges that Sines teaching nothing about providing a radius of curvature of the display surface "in the range of from about 4 to about 7 inches." The Examiner then cites *Appellant's specification*, page 6, lines 27-29, which recites that the radius of a typical

mechanical reel is generally in the range from about 4 to 7 inches, and alleges that, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide such feature “in order to provide an exact appearance of a mechanical reel.”

In response to the December 22, 2004, Amendment, and arguments made in relation to the curved surfaces recited in claims 1, 3-9 and 52, the Examiner asserted that “Sines explicitly discloses/teaches realistically simulating mechanical reels on a display.” The Examiner then concluded that “[d]oing so would require a mechanical or simulated reel that had a radius of curvature.” From this conclusion, the Examiner further concluded that “it would have been obvious to utilize Belfer’s curved display surface structure to approximate the radius of curvature of an actual mechanical reel to make the display look more realistic to a player.”

Appellant disagrees with the Examiner’s position and reasoning. Sines does not teach a curved display surface. FIG. 8 of Sines shows a flat display. Sines does not suggest a curved display surface, despite generic language that “[a]lternative . . . display configurations are possible.” Sines does not explicitly disclose/teach “realistically simulating mechanical reels” on a display. It is noted that a word search of Sines on the USPTO website for variations of “real,” “realistic,” and “realistically” returned no hits. Sines explicitly teaches embodiments wherein positions on a reel not normally viewable to the player are made viewable to the player such as by mirrors 26 or “by reflecting light from the reel peripheries to bundles of optical fibers leading *to the planes of the individual viewing windows* identified at 28” (col. 7, lines 40-64; FIG. 5)(emphasis added). Sines seeks to elevate player excitement by artificially permitting a greater field of view of the mechanical reel than might typically be afforded so that the players may

anticipate what might be coming up toward the paylines. This, by itself, contradicts the assertion that Sines is attempting to “realistically” simulate mechanical reels on a display.

From a different vantage, the Examiner is taking the flat display taught by Sines and is, in hindsight, implicitly declaring it a result-effective variable to be optimized and simultaneously asserting that it would have been obvious to curve the display to a particular degree so as to “realistically simulate” the mechanical reel 51. However, a particular parameter must first be recognized as a result-effective variable before the determination of the optimum or workable ranges of the variable might be characterized as routine experimentation. *In re Antonie*, 559 F.2d 618 (CCPA 1977). The present Examiner *assumes without evidentiary support* that the generic statement that “[a]lternative . . . display configurations are possible” suggests that the visual presentation of the display can be improved by increasing the radius of curvature. *See, e.g., In re Antonie*, 559 F.2d 618 (CCPA 1977)(*rejecting* the Examiner’s presumption, and Board’s acceptance thereof, that a parameter disclosed by an Applicant’s specification was a “result effective variable” when the prior art did not recognize the parameter as a result effective variable). However, neither a gaming machine display with a radius of curvature, nor a specific range of values of such radius of curvature are recognized by Sines to be a result-effective variable. Instead, the ends of the optical fibers of Sines form a flat display surface, and this flat surface is the only type of surface taught or suggested by Sines (*see, e.g.,* screen 55 noted on col. 8, line 41).

Even if Belfer were assumed, *arguendo*, to display a curved display surface, neither Sines nor Belfer remotely suggest providing a display with a radius of curvature that approximates the radius of curvature of a mechanical reel, as recited in claims 1, 3-9 and 52. The level of skill in

the art cannot be relied upon to provide the suggestion to combine references. *Al-site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 50 USPQ2d 1161 (Fed. Cir. 1999).

Although a prior art device “may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so.” *In re Fritch*, 972 F.2d 1260, 23 USPQ2d 1780 (Fed. Cir. 1992). The Examiner must show reasons why a skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed. *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998). This showing must be clear and particular. See, e.g., *In re Dembiczak*, *supra*. Broad conclusory statements, standing alone, are not “evidence.” *McElmurry v. Arkansas Power & Light Co.*, *supra*. The only “evidence” offered by the Examiner are the conclusions that “[i]t would have been obvious . . . to provide such feature in order to provide an exact appearance of a mechanical reel” (Office Action, Page 4) and “to make the display look more realistic” (Final Office Action, Page 4). Again, Appellant respectfully submits that Sines does not appear to be overly concerned with “realism.” Regarding FIG. 8, Sines notes that, like some of the other illustrations, “[t]he player sees an image . . . which show the symbols present on the periphery of the reel” (col. 8, lines 41-44)(emphasis added). Appellant respectfully submits that if Sines were, in fact, obsessed with “realism,” then Sines would not want players to see the periphery of the wheel, an “artificial” condition.

Accordingly, for at least the reasons noted above, Appellant respectfully submits that the *prima facie* rejection of claims 1, 3-9, and 52 under 35 U.S.C. § 103(a) is improper and submits



that the combination of Sines and Belfer has not been shown to teach and suggest each and every element of claims 1, 3-9, and 52. Reversal of this obviousness rejection is requested.

**D. SINES AND BELFER DO NOT TEACH OR SUGGEST, ALONE OR IN  
COMBINATION, THE RECITED IMAGE DISPLAY DEVICE AND OPTICAL  
FIBER CONFIGURATION RECITED IN CLAIMS 1, 3-7, 51-52 AND 54-56**

Claim 1 recites a slot machine comprising, *inter alia*, an image display device having a surface for producing *images of simulated mechanical reels* and a plurality of optical fibers having first ends “optically coupled” to the surface of the image display device. Claim 51 likewise recites a gaming machine comprising an image display device having a surface *for producing images* and a plurality of optical fibers have first ends optically coupled to the surface of the image display device.

By way of example, the specification discloses one embodiment of the invention in which a mechanical reel simulation system 10 includes an image display device 12 that provides an image output into a fiber optic bundle 14 comprising a plurality of optical fibers (FIG. 2). FIG. 2 illustrates a first end 16 of the fiber optic bundle 14 that is located adjacent to the image display device 12 and is “optically coupled” thereto (*see, e.g.*, page 6, lines 20-21). This “optical coupling” can be brought about by, for example, ensuring close proximity between the first end 16 of the fiber optic bundle 14 and the image display device 12 through the use of an optically transparent adhesive (*see, e.g.*, page 6, lines 21-24).

Fig. 8 of Sines depicts a mechanical reel 51 and optical fibers 52 arranged adjacent thereto to transmit an image of the reel. The optical fibers 52 are arranged with image input ends 53 adjacent and spaced apart from an outer surface of the symbol-bearing mechanical reel 51

(Col. 8, lines 23-46; Fig. 8). Sines does not disclose or suggest “optically coupling” the image input ends 53 of the optical fibers 52 to the movable outer surface of a symbol-bearing mechanical reel 51. The Examiner’s assertion that “Sines explicitly discloses this feature in Column 8, lines 24-52, specifically, lines 47-52” is unsupported (see Final Office Action, page 3, numbered paragraph 8). Sines discloses that the optical fibers can be of various types (col. 8, line 47) and that some or all of the optical fibers can be tapered to allow for magnification or demagnification (col. 8, lines 48-50); however, Sines has not been shown to teach or suggest “optically coupling” ends of the optical fibers (*i.e.*, which may vary in type and shape) to a surface of an image display device.

Still further, Sines appears to *teach away from* the position adopted by the Examiner in the Final Office Action that “it would have been obvious at the time of applicant’s invention to one having ordinary skill in the art to produce a simulated image because providing either of the images performs the same equivalent function.” Sines expressly teaches that “[v]ideo slot machines have been introduced and were initially well received, but have not replaced the mechanical displays . . . . Despite many such noticeable improvements or changes, many people still prefer the more traditional mechanical slot machines. *The action and sounds of mechanical reel slot machines have a particular and very widespread appeal to a large number of gamblers seeking this form of entertainment*” (col. 1, lines 23-33)(emphasis added). Thus, Sines teaches that both the action and the sound of the mechanical reel slot machines are functions which markedly affect determine the appeal of the gaming machine to a “large number of gamblers.” Sines thus appears to teach away from replacement of the mechanical reel with an imaging device as, for example, it would eliminate useful functions (*i.e.*, the sound and action) of the

mechanical reels upon which Sines relies. Such evidence of teaching away constitutes evidence of non-obviousness. *In re Bell*, 991 F.2d 781, 26 USPQ2d 1529 (Fed. Cir. 1993); *W. L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983).


Still further, implementation of the claimed image display device for producing images of simulated mechanical reels would eliminate the beneficial aspects of the mechanical reels 51 disclosed by Sines (col. 1, lines 22-33), change the principle of operation of Sines, and would appear to compromise the “very widespread appeal” engendered by the “action and sounds” of the mechanical reels. If a proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the reference are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810 (CCPA 1959). In this regard, such modification proffered by the Examiner would further render the combination non-obvious as the proposed modification would render Sines unfit for its intended purpose (*i.e.*, based on Sines disclosure in col. 1, lines 22-33). “If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.” *In re Gordon*, 733 F.2d 900 (Fed. Cir. 1984)(emphasis added).

Accordingly, Appellant respectfully submits that the Examiner has not set forth a *prima facie* case of obviousness of claims 1, 3-7, 51-52 and 54-56 under 35 U.S.C. § 103 in view of the combination of Sines and Belfer. Reversal of this obviousness rejection is therefore requested for at least the above reasons.

The Commissioner is hereby authorized to charge deposit account No. 10-0447/47079-00115USPT for any additional fees inadvertently omitted which may be necessary now or during the pendency of this application, except for the issue fee.

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Date

Respectfully submitted,



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8. **APPENDIX OF CLAIMS ON APPEAL**

The following claims are presently on appeal:

1. A spinning reel slot machine, comprising:  
an image display device having a surface for producing images of simulated mechanical reels;  
a plurality of optical fibers have first ends optically coupled to said surface of said image display device and seconds ends for displaying said simulated mechanical reels to a player of said slot machine, at least some of said second ends defining a curved display surface having a radius of curvature that approximates the radius of curvature of a mechanical reel; and  
a flat transmissive window in front of and separated from said curved display surface.

\* \* \*

3. The slot machine of claim 1, wherein all of said second ends define said curved display surface.
4. The slot machine of claim 1, wherein at least some of said second ends define a flat display surface adjacent to said curved display surface.
5. The slot machine of claim 4, wherein said flat display displays alphanumeric information and said curved display surface displays symbols on said simulated mechanical reels.

6. The slot machine of claim 1, wherein said radius of curvature is in the range of from about 4 to about 7 inches.

7. The slot machine of claim 1, wherein said image display device is a CRT display.

8. A method of operating a slot machine, comprising:  
selecting a random outcome in response to receiving a wager;  
determining a symbol grouping corresponding to said random outcome; and  
displaying said symbol grouping on ends of an array of optical fibers, said ends define a curved display surface having a radius of curvature that approximates the radius of curvature of a mechanical reel, said symbol groupings being representative of simulated mechanical reels.

9. The method of claim 8, wherein said displaying includes transmitting images of said symbol grouping through said optical fibers from an image source.

\* \* \*

51. A gaming machine, comprising:  
a processor for randomly selecting an outcome from a plurality of outcomes in response to receiving a wager;  
an image display device having a surface for producing images, said images corresponding to said selected outcome of said plurality of outcomes; and

a plurality of optical fibers have first ends optically coupled to said surface of said image display device and second ends for displaying said images to a player of said gaming machine to inform said player of said selected outcome of said plurality of outcomes, wherein at least some of said second ends define a curved display surface.

52. The gaming machine of claim 51, wherein said curved display surface has a radius of curvature that approximates the radius of curvature of a mechanical slot reel.

\* \* \*

54. The gaming machine of claim 51, wherein at least some of said second ends define a flat display surface.

55. The slot machine according to claim 1, wherein said image display device is an LCD display.

56. The slot machine according to claim 1, wherein said image display device is an LED array.

9. **EVIDENCE APPENDIX**

None.



**10.    RELATED PROCEEDINGS APPENDIX**

None.